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The Time of Grand Strategy

by

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Abstract

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Well known at the lower levels of war, the time factor is barely studied at the higher levels, especially at the level of grand strategy, which itself requires an accurate definition. Time, as a factor of grand strategy, is characterized by linearity and dialectic: being shared between competitors, its analysis must focus on temporal determiners and effects of strategic interaction. It becomes thus possible to describe a specific sequence of the grand strategic level, in which adaptation appears as the critical phase. Opportunity and initiative can then be defined through the prism of adaptation, showing how the art of strategy lies in the ability to create a temporal discrepancy between ones and enemy's sequence. Decisive act of the strategic intercourse, seizing the initiative can be defined as maintaining ones sequence whilst disrupting the adversary's, as coercing the enemy into adapting without being oneself coerced into it.

The Time of Grand Strategy

> What then is time? If no one asks me, I know what it is. If I wish to explain it to him who asks, I do not know.
>
> Saint Augustine[1]

> The realm of grand strategy remains for the most part terra incognita – still awaiting exploration, and understanding.
>
> Basil Liddell Hart[2]

Time is, along with space, the most obvious element of the military decision. However, there is an experience that any military planner has made: when it goes to analyzing the time factor, few tools and little theoretical background is available. Difficulty increases when the problem must be solved at the level of grand strategy, a domain where theory and doctrine remain for the most part to be written.

The interest of understanding the time factor in grand strategy lies in the increasing complexity, in modern democracies, to harmonize timeframes of policy, strategy, and operations. How can short cycles of information or tactics match the long cycles of policy or industry?

This question implies a dual reflection. It requires indeed understanding the very concept of time at the level of grand strategy, by letting emerge its actual nature from perceptions of time that can vary with cultures and strategic theories. It also demands to understand the various contents given to the concept grand strategy, and to see how each of them influences the place given to the time factor.

This reflection reveals the three characteristics of time at the grand strategic level: linearity, in both practical and cognitive dimensions; dialectic, for time is shared

amongst belligerents and its perception results from their interaction; sequence, since the notion of cycle cannot apply in the variable environment of strategy. Sequence appears as the most operative concept at the higher levels of war: understanding grand strategy through the prism of temporal sequence indeed helps giving a new content to notions of opportunity and initiative.

To demonstrate these conclusions, this research paper will review cultural representations of time and concepts associated with time in strategic theory. Cross-examining theories of strategic time will then allow describing the sequence of grand strategy and drawing conclusions about critical timeframes at the higher levels of war.

Time, Culture, and Strategy

Warfare is structurally rooted in culture. Its ways and means indeed diverge deeply, depending whether the end is the annihilation of enemy forces, as in the 20th Century Europe, or the capture of prisoners fated to be sacrificed as in the Flower Wars of the Aztec empire. There are therefore clearly distinct Western, Chinese or pre-Columbian ways of war, driven by technology, societal organization, or political and mental representations of war. This approach to warfare can be very imperfect, especially when it aims at validating an intrinsic strategic superiority of a particular culture, but remains however essential to understand the phenomenon of war as a political practice.

Fernand Braudel defines a civilization as the conjunction of four elements: space, society, economy, and collective psychology.[3] As a critical element of the latter, time plays a central role in the cultural approach to strategy, and a key to understand how differently all elements of national power can combine in a grand strategy.

The Myth of the Decisive Battle: the Western Perception of Strategic Time

"All flows and nothing stays":[4] since its Greek birthplace, Western culture has had a linear perception of time. Time is however not perceived as a neutral factor. From the Christian revelation, the West has indeed developed the aim of salvation, which was overtaken in modern positivist terms by the concept of Progress: time is not only linear, it is also positive. On the contrary, representations of time in Western culture are also dominated by the perception of decadence, the "melancholic feeling of alienation or inferiority towards its sources".[5] As the evangelists portrayed on medieval stain glasses stand on the shoulders of the Prophets, Western societies perceive the line of history as declining from a primitive truth: Athens, Rome, or the Founding Fathers. This combination of Progress and Decadence, as well as the tension between them, is a critical element of our mental representation of time.

The Western perception of time, whilst linear, is not exclusive of cycles. The two classical representations of Chronos illustrate this combination: the god of time is either portrayed pushing the zodiac wheel,[6] illustrating the rotation of seasons along the line of time, or holding an hourglass to symbolize the flowing, linear time, and a sickle to represent the cycle of seasons.[7] In Western representations of time, this cyclical vision is functional and originally related to agriculture. In contrast, linearity is the timeframe of higher human activities, which escape to the framework of seasonal cycles: primarily politics, but also philosophy or commerce.

Interestingly, the highest act of policy that is war is originally inscribed in a cyclic logic: for the Greek hoplite, a farmer, war is a summer activity, a reality which will prevail until the beginning of the modern era. From Greek agricultural and democratic society emerged the central concept of decisive battle. Initially conceived as a way to keep war

limited in time and violence,[8] this concept has irrigated the Western strategic culture until contemporary times. The ideal-type – in the Weberian sense – of war that prevails in the Western psyche is therefore a short campaign concluded by a decisive battle. It prevails on the opposite ideal-type (long, protracted, and low intensity warfare) invented in the West, and widely forgotten since the industrial age. From that perspective, contemporary counter-insurgency campaigns break with the prevailing ideal-type, because of their duration and the absence of decisive events. This renders it difficult for policymakers to advance any idea of success, and even the very possibility of success.

The ideal-type inherited from Antiquity also relies on the discontinuity between peace and war: “a time for war and a time for peace”, says Ecclesiastes. War is not a normal, but an exceptional state of political relations: it is therefore perceived or envisaged as a specific timeframe in which the usual legal, ethical, and social rules are altered. War must be, to be perceived as such, a particular timeframe, a parenthesis in social and political life; otherwise, the state of war is not perceived and military action happens in a peacetime cognitive context. Here lies the difficulty of the political management of contemporary expeditionary campaigns.[9]

Brevity, violence, and state of exception create a specific Western cognitive framework of war and make time a critical element of the strategic decision, in a political perspective. One can therefore make a distinction between the upper levels of war, strategy and policy, where the concept of duration prevails, and its lower levels, operations and tactics, where reign more technical – and, often, cyclic – factors such as logistics. Far from Greece, modern warfare still reflects old myths.

The Propensity of Things: Strategic Time in Eastern Asia

It is regarded as a commonplace to say that Chinese society has been decisively influenced, in its social organizations, political structures, and mental representations, by its agrarian nature and has therefore developed a cyclic vision of time. A more careful look at the concepts associated with time in Chinese and Japanese cultures reveals more similarities than differences with Western perceptions, and some unexpected contributions to the comprehension of strategic time.

Approaching Asians perceptions of time can begin with vocabulary. It is significant to notice how late the term “time”, in its Western meaning, was translated in Japanese or Chinese: 1872 for the first recorded occurrence in Japanese, 1908 for Chinese.[10] Previously, deriving from the agrarian nature of the society, a definition of time by the term “shi” (season) helps understanding that, like in the West, the initial perception of time is cyclic. The divergence lies in the extension of this concept to the long time, in opposition with the Western linear perception: Chinese see in time a succession of moments, an ensemble of eras, seasons, and periods, each having its own consistence and attributes.[11]

This representation is of political and strategic significance. First, the passage from an era to another one is a synonym to disruption of the social order: Braudel describes China’s history as the “slow motion of an enormous reality”, “three millennia punctuated with catastrophes” .[12] This has two corollaries: the inherent conservatism of established orders – the cultural root of Sun Tzu’s principle of stability of policy – and the necessity to accept the risk of unrest as a condition for change.

Second, each season having its own consistency and attributes, establishing a new situation requires establishing new rules. In warfare – by excellence, the activity aiming

at a new era – this translates in the refusal of pre-existing rules or, to speak in Clausewitzian terms, in the necessity to invent a new grammar of war. As abstract as it can seem, this concept is however highly operative and can be identified in contemporary Chinese strategic theory: the concept of unrestricted warfare – or beyond-the-limits warfare – based on strategic asymmetry, reflects this idea that war requires setting new rules which refuse and undermine the enemy's.[13]

Strategy aims at this new setting. The original approach of Chinese culture to the concept of effectiveness helps us understand the role of time in strategy. Instead of being considered with the perspective of immediate results, effectiveness is regarded as the potential contained within a situation.[14] Time is thus the primary criterion to assess and measure the effectiveness of an action: reality is what already exists, but also what might potentially exist. The art of strategic relationship lies therefore in the space-time necessary for an event to occur and the space-time in which it will produce effects. There is some similarity with Western strategic calculation, but also a significant difference: the Western calculation aims at action (the decisive battle); the Eastern at establishing a favorable disposition, which can be political or strategic. The essence of Eastern strategy can be understood as the art of using time to create potentiality or, in other terms, to influence and exploit the propensity of things.

The Time of Grand Strategy: a Theoretical Overview

Sun Tzu and the Long Time of Strategy

Sun Tzu's strategy can be regarded as inherently grand strategic. For him, war must indeed be considered as a last resort after having exploited all possible ways of

diplomacy and other elements of power.[15] Within war itself, all ways, including non-military ways, must be considered for dividing and weakening the enemy. For Sun Tzu, war is therefore intrinsically total: it explains his understanding of strategy as a collective rule of action, opposed to tactic where autonomy and initiative must prevail.

Sun Tzu's strategy is thus characterized by the need for stability, which drives his vision of time. He explicitly identifies time as the third (*t'ian*) of the five principles of strategy, the sky being understood as both a material reality (the weather) and an immaterial concept (time).[16] The sky's economy is determined by the two principles of *yin* and *yang*, which interact in a dialectical relationship. This dialectic is present in all Sun Tzu's theory: it establishes a binary division between strategy, which refers to stability, long time and reason, and tactics, associated with opportunity, short time and unpredictability.

This dialectical approach translates into Sun Tzu's precept of attacking in a predictable, visible, and frontal manner (*zheng*) in order to vanquish through an unexpected, discrete and slant action (*qi*).[17] The essence of the art of war is to have the enemy take the *zheng* for the *qi*, and vice-versa. There is therefore no necessary correlation between time, visibility, and decisive effects: decision can be obtained by a patient and concealed long-term strategy, without any major engagement. For the nation which has time, it can thus translate into a rise to power with no military strategy: this pattern was exactly Deng Xiaoping's strategy for the "return of China", based on a patient "maximal use of immobile factors of production to absorb mobile factors",[18] which slowly led to the *fait accompli* of China's global power.

The symbolism of the *Art of War* hides the clarity of Sun Tzu's understanding of the role of time in grand strategy. Duration and stability are indeed the primary characteristics and qualities of strategy, in order to set the political object of the war for all its actors; lower strategies and tactics must contrarily be marked by variability and allow actors' autonomy. Time is not only an element of strategy, but also one of its tools: in Sun Tzu's dialectical depiction of indirect approach, time, as an element of deception and the critical condition of surprise, is key to turn the *front* into the *slant*.

Clausewitz: Time of Policy, Time of Strategy

In spite of Clausewitz's most elaborate understanding of the political-military nexus, his vision of grand strategy is not explicitly expressed in *On War*. Indeed, despite his concept of continuity between policy and war, he seems to subordinate non-military strategies (finance, diplomacy, information) to strategy itself: this is evidenced by his analysis of the factors of the culminating point of victory, where diplomacy and economy are depicted as multipliers of strategic effectiveness.[19] The modern meaning of grand strategy is then closer to Clausewitz's policy than to his understanding of strategy. This helps envisage the Clausewitzian comprehension of the time factor: there is not necessarily any continuity between the time of policy, inscribed in the logic of the trinity, and the time of strategy where operational factors prevail.

At the policy level, the Clausewitzian vision of time can be interpreted as an eroding factor, one of the reasons why *pure war* is unattainable.[20] Due to the variability of the conditions of war and to the evolution of the three element of the trinity, it is a source of instability for the political object of the war, and the primary reason for escalation. Thus, we can infer a contradiction between time and limited warfare: it is

both true theoretically, from the perspective of pure war, and practically, especially from the attacker's point of view.

Clausewitz indeed describes time as the dominant factor of the offense, which aims at obtaining a decision at a chosen moment, in opposition with defense, which aims at obtaining it in a chosen place.[21] Space is contested, but time is shared.[22] This difference makes the latter the core of the strategic competition, which is for Clausewitz to delay one's culminating point whilst accelerating the enemy's. Time has therefore to be analyzed and instrumented to "moderate and regulate enemy movements so as to make them calculable", the aim being for the commander to select the time and place for the decisive battle.[23] For Clausewitz, in spite of his sequential vision, time is not necessarily linear and can be deliberately compressed or expanded.

What makes the analysis of the time factor difficult is, according to Clausewitz, its relative nature. In war indeed, one belligerent dictates the law to the other".[24] An action or an opportunity is long or short only from the enemy's perspective. Being able to extract oneself from that dialectic, to protect or increase one's "time resources" is therefore critical to enhance one's freedom of action. At the higher level of strategy, time is thus regarded, with space, as an equalizer of offense and defense.[25] At the political level, it even becomes a multiplier for the defender thanks to psychological weakness it creates on the offender side ("envy, jealousy, anxiety and sometimes even generosity").[26]

Several practical conclusions can be drawn from Clausewitz regarding the time factor in grand strategy. First, regardless of the level of war, time is quintessentially a sequential factor: knowing and mastering one's and the enemy's sequences of actions

is key in the scientific part of strategic command. Second, time is essential to make defense superior to offense. Though hard for political reasons related to the instability of the trinity, strategic patience is therefore critical to achieve strategic success. Third, war is a highly time-sensitive condition for policy. Grand strategy must therefore use part of its resources to stabilize the elements of the trinity which get most eroded over time, specifically the people and its army.

Liddell Hart: Time as a Resource

British theorist Basil Liddell Hart defines grand strategy as *policy in execution.*[27] Its role is to "co-ordinate and direct all the resources of a nation (…) towards the attainment of the political object of the war". Liddell Hart's conception is limited to the sphere of war: this higher strategy aims at providing the adequate resources to war and setting conditions for the subsequent peace. Thus, his vision of grand strategy is not to use war amongst other ways, but to optimize warfare through the combination of all possible ways: grand strategy is a "policy of war".[28] He qualifies it himself as a "*terra incognita*, still awaiting exploration and understanding".

Liddell Hart's military-centric vision of strategy[29] makes it difficult to transpose his theoretical elements at the grand strategic level. His analysis of the elements of strategy is however a relevant basis for this transposition and an extrapolation of his vision of the time factor at the higher level. [30] Liddell Hart describes the goal of strategy as diminishing the possibility of resistance. Its way is to exploit the physical element of movement and the psychological element of surprise, both elements having a dialectical relationship (movement creates surprise, and reciprocally). Time underlies both elements: movement, as a variable of the calculation of transportation; surprise, as a

key factor to erode the opponent's will. These concepts reveal their relevance at the grand strategic level if their understanding is broader. Maneuver can thus be read as the capability to reallocate the different elements of national power to rebalance grand strategy towards a new dominant element; surprise can be understood as the ability to set unexpected political conditions.

Liddell Hart's famous final chapter on grand strategy, though sibylline on its principles, can be easily interpreted in terms of role of the time factor. First, the political object of the war must prevail over the military objective: the aim being to "attain a better peace", grand strategy's timeframe is structurally broader than strategy's and opponents must focus on the post-war phase rather than on war itself. Second, time is a key element of any *conservative strategy*, in which it is both an end (lasting longer than the opponent) and a mean (for instance, the time available for the defender to make the objective of war distant from the attacker). The main interest of this approach is to establish a direct correlation between limitation of war and time: who runs the risk of war has two main schematic ways available, either to conduct a long (and even protracted) war but to keep it limited in scale, or to seek a rapid decision through unlimited ways and means.

Thus, the main contribution of Liddell Hart to the comprehension of time at the grand strategic level lies in the acknowledgement of time not only as an element of decision, but also as a proper resource. Time available conditions ways and limits ends. The question is therefore to assess time resources available: exploiting his concepts from the strategy level, the higher art of time analysis lies in the identification of time factors at play in the dialectical relation between movement and surprise. What is the

timeframe of such a conjunction generating *impetus*? What are the time patterns of this impetus in terms of duration, phase and frequency? These questions must be answered in a long term and political perspective, and by acknowledging the variability of the conditions of grand strategy. Liddell Hart's friend and follower André Beauffre helps us take this variability into account.

Beauffre and the Dialectical Nature of Time in Warfare

French general and theorist André Beauffre defines grand strategy – he prefers the expression of *total strategy* – as the immediate subordinate of policy, in charge of conducting *total warfare.*[31] Its role is to "define the missions and the combination of political, diplomatic, economic and military strategies". Close to Liddell Hart's concepts, he insists on the practical content of grand strategy: it is indeed applied to a precise end, and explicitly implies the use of force or coercion, which is the foundation of its difference with policy.

For the study of the time factor, the interest of Beauffre's theory lies in his analysis of the elements of the strategic decision.[32] Beyond the three classical elements (time, location, forces), he indeed describes two factors influencing the strategic decision: the *maneuver factor*, resulting from the fight's dialectic; the *variability factor*, resulting from the permanent evolution of the milieu and means of strategy. Variability, especially in contemporary times where technology evolves exponentially, makes the preparation of war more important than war itself, by setting its conditions.

The first key-conclusion to draw from Beauffre's theory is the non-linearity of strategic time because of the dialectical nature of strategy: the maneuver factor makes that time can be either slowed or accelerated. The second key-conclusion is that time is

not an objective, but a subjective factor determined by the enemy: it responds to Clausewitz's idea that "the former dictates the law to the latter".[33] Time should therefore not only be analyzed from each side's perspective, but also from the perspective of their mutual interaction.

Several practical conclusions can be drawn for grand strategy. First, there is no time continuum between peace and war. This is a classical but critical challenge to democratic societies at war, whose electoral tempo does not necessarily match strategic needs, a challenge evidenced by the French election of 1956, during the war in Algeria, or the 1944 U.S. presidential election. Second, time is a form of asymmetry in the dialectic between belligerents. The opposing side must be expected to use time to bypass one's comparative advantages. T.E. Lawrence's Medina strategy offers a classical example of such a "weariness strategy", as Beauffre names it. Third, a nation must be prepared to adapt its strategic cycles (politics, economy) to the specific and unforeseeable timeframe of war. Industry is typically the field where this kind of "absolute adaptability" is the costliest, but also the most operative in wartime.

The main lesson of André Beauffre is the necessity to introduce "counter-random" thinking in policy and grand strategic thinking. The weakness of the analysis of time, commonly conducted in terms of durations and cycles, is indeed to study each belligerent party separately, instead of focusing on their interactions. The higher art of time analysis is therefore to identify the duration and frequency of these interactions and the time resources available for the response.

Conclusion on Theory: Strategic Time under Tension

From Ancient Masters to modern theorists of nuclear deterrence, one observes three constant features in the comprehension of time as a factor of grand strategy. Interestingly, they can seem obvious but happen to be often disregarded or insufficiently understood.

The first constant in theory is the discontinuity between peace, crisis, and war time: the dialectical time of strategy succeeds the linear time of peacetime policy. The first order effect of crisis or war is to shrink the time resources available to policymakers. The second order effect is their absence of autonomy: time being shared amongst actors, they must assess their time resources from the two perspectives of the enemy and of the strategic interaction.

The second permanent feature is the existence of different timeframes at each level of war and in each domain of grand strategy. Beyond the simple notion of synchronization of actions, the challenge to decision makers is to integrate all tempos in a consistent whole whilst respecting the temporal needs and constraints of every level and domain.

This idea drives the third and most problematic constant observed in theory: the need for strategy to be stable and inscribed in longer time. The vertical and progressive narrowing of timeframes from the policy level to the tactical level is indeed eroded by modern political practices, whose speed and reactivity are a source of strategic instability. Strategic time tends thus, as an intermediary level, to be stressed between the short time of tactics and the constraint of political volatility.

Grand strategy, as a combination of all elements of national power to reach the ends of policy, must take this reality into account. In this light, it appears that its key role

is to provide the strategic level with stability and appropriate time resources to master the volatility of its upper and lower levels. From the perspective of the time factor, grand strategy can then be redefined as the combination of strategies supporting each other to reach the long term ends of policy.

Theorizing the Time of Strategy

The time factor has been extensively studied and translated into models since the early ages of strategic science. However, these studies apply mainly at the lower levels of war, essentially at the tactical and operational levels. Moreover, scientism – and its symptom: the temptation to put war in equation - pervades in many such studies: Jomini reflects this tendency best. The intent is to provide the commander with analytic tools, letting him identify his and his enemy's culminating points. Focusing on the upper levels of war and acknowledging the reality of fog and friction, Clausewitz clearly rejects any desire to put war in "algebraic formulas".[34] Neither he nor his followers therefore developed analytic tools allowing a scientific approach to the time factor in strategy.

The Nature of Strategic Time

To this end, one must start with defining the very concept of time. In strategy, time's nature is not a matter of debate. Like in physics, it can be regarded as a primary concept, which does not need to be defined: seconds, minutes, hours make universal sense. The real question about the nature of strategic time is to know if it is continuous or discrete. Strategies evolve in time and space without interruption: strategic time is inherently continuous. Its perception, however, is discrete in the absence of real-time and enduring tools to observe and analyze. This dichotomy between actual time and its perception is central in the practice of strategy for two reasons. First, it is impossible to

free oneself from the constraints of continuous time: time cannot be suspended and duration cannot be eluded. Strategy is therefore primarily a quest for temporal freedom of action. Second, being continuous, time cannot be accelerated nor slowed but, due to imperfect knowledge in war, can be perceived as such. As a perception, it can be influenced. The art of strategy aims therefore at generating a perception of non-linearity, for instance in order to provoke or delay a maneuver.

Models for Strategic Time: Sequence and Duration

The time factor in strategy is scarcely studied. Models, of which there are many at the tactical and operational levels of war, fail to systematize the approach to the time factor in strategy and grand strategy. This approach is dominated by the Western dual vision of time: the repetition of cycles along a linear time axis. This vision can be true at the lower levels of war, because of the frequent recurrence of cyclic events, for instance in the fields of command, logistics, or intelligence. The longer time of strategy and its variability ask the question of the relevance of such a cyclic vision at the higher levels of war.

It seems important to start by stressing that there are no proper cycles in warfare, because of the strict linearity and continuity of time. Variability ensures that strategy's path never – or rarely – passes twice by the same point. The cycle is a metaphor – or a *symbol*, in its etymological sense – representing the reality, made of repetitive sequences. John Boyd's concept of decision cycles,[35] though conceived for the tactical and operational levels, is most relevant to illustrate this notion of recurring sequences and to introduce the notion of frequency. The decision maker successively observes, orients, decides, and acts, and keeps repeating this sequence in a constantly evolving

context. By designating the essence of victory as the ability to compel the adversary to constantly resume this sequence at its beginning, Boyd provides theoretical evidence to Clausewitz's intuition of the centrality of sequence.

Three key concepts – frequency, sequence and duration – emerge to develop a model for the time of strategy. As the interval of time between two recurring events, frequency can be read as a function of sequence, which itself is a function of duration. This relationship between concepts tends to indicate that a hierarchy or dialectic exists among them. Duration appears as the fundamental concept because of its dual nature: it is a restraint, which dictates sequence and thus frequency; it is a constraint, determined by strategic level decisions about frequency.

This duality is essential to model time in grand strategy, whose domains are inscribed in one of two opposed temporal logics. The first logic is the belief – or imperative – that time can be bent: this inductive approach is often related to policy and aims at determining sequences and frequency in function of a subjectively chosen time imperative. On the contrary, the second logic is the acknowledgement of time as an objective factor, which drives strategic possibilities by dictating sequence and frequency. Interestingly, this duality reflects the classical dualities of war: art and science, subjectivity and objectivity, creation and engineering. From the perspective of the time factor, grand strategy is therefore both an internal struggle to reconcile competing time "logics" in a harmonious whole, and an external attempt to disrupt the opponent's temporal harmony.

Sequence of Grand Strategy, Sequence of Warfare

As the combination of all elements of national power to reach the ends of policy, grand strategy is driven by the two dynamics evidenced in theory: sequence of events; dialectic of actions. A model of time for grand strategy must therefore focus on describing the critical factor: the sequence of strategic interactions. It must also reflect the higher level of complexity resulting from the number of domains involved, each having its own sequence and frequency.

The starting point is unavoidably to identify the sequence of warfare as a whole. Politically, it is the continuum of peace, crisis, war, and peace. This sequence would be of little interest if it did not remind us that peace remains the finality of war, which stresses the importance of duration as a political factor of war. It also reminds us that denying the possibility of conflict to a war-like opponent is a primary way to break his political sequence, if war was a deliberate and necessary way for him to reach his political goals. Non-military domains of grand strategy contribute decisively to such approaches: U.S. monetary pressure on the British pounds during the 1956 Suez crisis had a decisive effect to compel Britain to withdraw from Egypt.[36]

Strategically, defining the sequence *in* warfare is more complex and subject to interpretation. It can indeed be defined using two different perspectives. First, sequence can be identified as the consecutive actions aiming at the strategic objective *in* the war, for example according a functional “prepare – act – react” typology. Second, sequence can be identified as the consecutive conditions to reach the general objective *of* war, for instance “suppress the adversary’s comparative advantages – dislocate his strategic system – exploit politically the effects of strategic dislocation”.

Robert Leonhard's typology of objective and subjective warfare provides a relevant framework to unify these two approaches.[37] In a Clausewitzian perspective, he distinguishes the "concept of applying military power against enemy policy in order to compel obedience", which considers the political object of war and can therefore be defined as objective warfare, from the practical use of force against the enemy's military forces, defined as subjective warfare, "in that they target the friendly forces counterparts but also […] must be subject to the political object of war". Following the Clausewitzian theory of the political object of war,[38] Leonhard thus defines the grand sequence of war: subjective warfare precedes objective warfare. At the lower levels of war, he reformulates this sequence as a protective phase of the war ("nullify the enemy's strength to prevent interference with the friendly plan") preceding the dislocation phase.[39]

This subjective-objective sequence is highly operative at the grand strategic level, where it makes easily understandable the combinations of military and non-military elements of power. However, it remains insufficient for a comprehensive description of grand sequence, and must incorporate the dialectical nature of strategic intercourse.

The Sequence of Grand Strategy

Describing the sequence of grand strategic interaction requires understanding its internal logic. Following Beauffre, this logic is dialectical in nature: any sequencing must therefore reflect mutual influences amongst opponents, iterative and consecutive actions or events, practical and psychological dimensions of strategic events. Collating three analytical grids helps us infer a description of the grand strategic sequence: the

functional sequence of warfare, Boyd's decision-cycle theory, and Leonhard's subjective/objective sequence.

Three Approaches to Grand Strategic Sequence

Whilst related to the operational and strategic levels of war, functional sequence (prepare, move, strike and exploit) can be transposed to the grand strategic level. At the governmental level, preparation starts with the decision and subsequent planning. A specific sub-phase, coordination, must be acknowledged due to the complexity of the system: a good example is offered by the way a country turns its peacetime economy into a war economy. The last sub-phase of preparation is devoted to practical preparation measures.

Movement, at the upper levels of war, must be considered in a conceptual manner: it can be understood as the staging of the elements of national power. It covers, for instance, shaping the information environment, gathering and allocating financial assets prior to monetary action, prepositioning military resources around the strategic objective. As such, movement is still part of preparation. The difference comes from the orientation given to these elements, towards the objective: DIME constituents are not only mustered (the goal of the preparatory phase) but also put in movement, sequentially or simultaneously, in the perspective of action. The movement phase must therefore acknowledge a part of visibility, another difference with the preparatory phase, in which concealment remains easier due to immobility of power factors.

At the level of grand strategy, striking should also be understood beyond the boundaries of strategic action: it consists in a combination of actions aiming at obtaining decisive effects that make the political goal attainable. The strike is therefore not limited

to military action nor necessarily an action of great scale. To follow Sun Tzu, if the movement phase is successful by creating absolutely favorable strategic conditions, the strike can be limited to diplomatic and informational actions. Its aim is to render exploitation possible. Exploiting in grand strategy is the final, deliberate, and decisive step towards the political objective. It therefore consists both in advancing one's advantages against the adversary's center of gravity, and in preventing him from re-establishing a consistent opposition. Strike and exploitation are the heart of the dialectical interaction that sets the new strategic conditions. The sequence of exploitation should therefore start with the assessment and decision sub-phases, and envisage preparatory measures, prior to implementing any exploiting actions.

In the functional approach to grand strategic sequence, preparation and exploitation are the two critical phases for decisions, because of the need for political orientation and subsequent governmental coordination. John Boyd's decision cycle – observe, orientate, decide, act – is a solid base to clarify the sequence of grand strategic decision.

Boyd's first step, observation, is the phase in which a governmental system will try to know. Knowledge is attainable through three conditions: to be equipped, capable, and willing to know. Indeed, not only must a government possess knowledge tools, intelligence services for example, it must also possess the ability to make sense of information and to be realistic, the latter point being critical, both in democratic and authoritarian systems. Time available for intelligence collection, analysis capacity, and political biases are the three critical vulnerabilities of the system in this phase.

The second phase of Boyd's decision cycle, orientation, can be understood at the grand strategic level as the moment, a government tries to understand the situation. The goal of this phase is double: first, mastering cognitive or organizational biases to interpret information and define, beyond the picture of the strategic situation, its political meaning and potential; second, disseminating this perception, which will provide the basis for the upcoming strategy and should therefore invite consensus. This understanding phase is thus not necessarily easier nor shorter than the previous. On the contrary, it is a moment of greater vulnerability – especially to information warfare – and can demand considerable political will.

This phase precedes the critical phase of decision. Like knowledge and comprehension, decision must not be seen as an event, but as a process: decision is not instantaneous but has duration. For these reasons, decision can be subject to disruption. It indeed relies on political, administrative, and cognitive processes that can create many vulnerabilities and reasons for delay or indecision.

From the perspective of grand strategy, the two most operative moments of the decision cycle are comprehension and decision, for they result from the most complex processes and show the highest level of political sensitivity. They must therefore be integrated in Leonhard's sequence of subjective and objective warfare. This sequence can be related to the functional approach, subjective phase translating into interaction, objective phase into exploitation. Leonhard's transposition into protection and dislocation phases helps us translate this sequence into grand strategic terms. He indeed describes the protective phase as the consecutive process of preparation,

interaction (attack or defend) and adaptation: the two former can be analyzed in the same way as in functional sequencing.

The latter, adaptation, is Leonhard's original contribution. It is by essence a reactive process. It should however not be seen as a synonym for misfortune: a system can indeed be compelled to evolve in a positive situation. This introduces the notion of potentiality: what makes adaptation necessary in a favorable situation is the necessity to maintain a competitive advantage or the possibility to see one's adversary gaining one in the future. Adaptation is therefore both a cognitive and practical process. Its sequence responds to Boyd's phases: knowing, understanding, and deciding. The last phase, action, consists in the practical implementation of change. In this implementation phase, duration is critical at the grand strategic level, for political reasons (the necessity for change and its solutions must be acceptable and consensual) and due to long cycles of key domains of public action, such as industry. Adaptation is therefore a moment of increased vulnerability, because of the temporary inhibition of offensive or defensive capacities, in both practical and psychological meanings.

Getting Prepared to Adapt: the Sequence of Grand Strategy

By combining the three previous approaches, it becomes possible to describe a comprehensive and accurate sequence of grand strategic interaction, which reflects the specificity of this higher level of war. This sequence can be summarized in terms of the following steps: prepare, interact, decide, adapt, and exploit.

Prepare

The initial phase can be subdivided, as seen above, in decision, planning, coordination and preparation. The key factor of this phase is the anticipation of the outcome of interaction in terms of adaptation measures that might become necessary. Beyond practical measures, anticipation must be thought in cognitive and psychological terms: the governmental system and public opinion must be ready for change. Here lies an utmost difficulty in the case of limited warfare, where political acceptability often relies on ignorance of potential evolutions of a conflict.

Interact

Consisting in the practical confrontation of movements and strikes, interaction is necessarily characterized by dissymmetry: differences in means, approaches, or domains of effort render improbable, if not impossible, a strictly symmetrical intercourse. The primary function of interaction is therefore to reveal the actual nature of competitive advantages of both opponents. Consequently, its aim is to guarantee the establishment a decisive advantage that will allow exploiting towards the final objective with as little friction as possible.

Thus, illustrating the classical concept of war as a struggle for freedom of action, the interaction phase covers two types of actions that can be simultaneous or consecutive: protective actions aiming at preventing the adversary from disrupting one's strategy; offensive actions aiming at coercing him to amend his plans.

Decide

By revealing competitive advantages, interaction renders necessary the first step of the dialectical process of adaption: assessing the situation and deciding, for which abovementioned phases of Boyd decision cycle apply literally. What must be

understood is the nature of the decision to be taken, which is to exploit towards the objective by taking advantage of existing trends, or using a new strategy. Therefore, the decision process must not focus on the instantaneous, subjective situation but must consider the potential this situation carries, in the perspective of the objective phase of the confrontation. An example from the operational level, Foch's assessment on the eve of the Battle of the Marne, reflects this double focus: "my centre is giving way, my right is retreating, my situation is excellent, I am attacking".

Adapt

Regardless of the situation, adaptation is an unavoidable consequence of the strategic interaction, an effect of Beauffre's maneuver factor: it is a condition to maintain existing competitive advantages or a necessity to counter the adversary's. The specificity of adaptation at the grand strategic level lies in the governmental and interagency process of implementation, which increases internal friction and duration. Moreover, not only is the system more vulnerable due to its temporary instability, it is also subject to external disruption: there is therefore a race for adaptation amongst opponents, the first to complete its adaptation gaining a potentially decisive advantage.

There seems to be two fundamental conditions for success in this race: the existence of a reserve of power factors that will offer some strategic coverage, that is to say allowing to maintain the effort or to gain time during the adaptation process; a structural adaptability of the system, conceived as early as preparation phase and concerning organizations, and processes. Being cognitively and practically ready to adapt is the primary condition of success in the adaptation phase, which is itself the critical phase of the grand strategic sequence.

Exploit

As the objective phase of war, exploitation aims at reaching the political goal rather than consolidating the success of the interaction: this phase seeks to turn strategic results into political effects. Clarity of the goals of the confrontation is therefore key, so as not to pursue the wrong objective.

It was previously seen that exploitation combines actions aiming at the adversary's center of gravity and preventing the resumption of a significant opposition. The specificity of the grand strategic level lies in the possibility of exploitation from a situation of strategic weakness, a situation illustrated by the Algerian National Liberation Front against the French government in 1961-1962. Exploitation must thus not be understood as an exclusively practical process, but also as cognitive: its mindset is to render unavoidable the political conclusion one seeks in the confrontation.

Exploiting the Concept of Sequence

The sequence prepare/interact/decide/adapt remains very generic. It must be described more precisely, relevant to each system in the game, to be useful. Accuracy is necessary to identify the moments and domains of vulnerability of each system: the science of analysis then serves the use of time in strategy, which is to maintain one's sequence while disrupting the enemy's.

Anticipation should therefore focus on two critical moments, interaction and adaptation, in order to determine appropriate measures for increasing adaptability. In the preparation phase, analysis should therefore seek to identify several critical periods in the sequence to come.

The first timeframe to determine is the period of non-interaction, understood as the period of time, before two systems directly or indirectly interfere with strategic and political effects. This period ends when interaction has produced its first effects above the operational level: it therefore can last beyond the beginning of the interaction phase. It must be distinguished from the period of impunity, during which a system remains immune to adversary coercion, or a strategic action can be conducted without interference. The period of impunity can therefore last until the enemy's adaptation phase, if the domain chosen for action is beyond the adversary's reach.

Planning should also highlight the evolution in time of the elements of the DIME, first of all periods of irrelevance, during which an element of national power is useless in supporting the pursuit of the national objective, and must therefore be balanced by other elements. It is complementary to the notion of period of vulnerability, when an element of national power is anticipated to be at threat and must therefore be supported by other elements.

Anticipation must then identify the critical timeframe associated with adaptation. The first is the period of governmental reaction, which is the time necessary for a governmental system – understood as decisional structures and implementing agencies – to react to strategic stimulus, from the assessment to the strategic guidance. A difference must be made between reaction and adaptation, since the former does not necessarily imply the latter. Anticipation should therefore also try to estimate the period of adaptation, or time necessary for a system to adapt to a new strategic situation that makes is partially or totally irrelevant. Including knowledge, doctrine, organization, procurement and public information, adaptation is marked by duration and complexity:

analysis should therefore seek to identify, within the period of adaptation, short and long cycles involved, so as to maximize one's adaptability and to identify enemy vulnerabilities.

Analysis, by drawing from sequences and critical timeframes, gives access to the two key concepts of opportunity and initiative, which can be defined from the perspective of temporal sequence. Opportunity can indeed be described as the temporal window, during which a situation of potential strategic decision is created by a discrepancy between one's sequence and the adversary's. It can consist in an advance or a delay in knowledge, decision, adaptation process, or many other factors: in all cases, opportunity lies in the possibility of accelerating one's sequence for the detriment of the enemy. Opportunity can therefore appear at any stage of the sequence, unlike initiative, which relates directly to the concept – and phase – of adaptation. Initiative can indeed be defined as the situation that appears when a competitive advantage makes a party able to coerce its opponent into adapting, without being itself coerced into it. The subjective competitive advantage can then be exploited to achieve objective results.

In conclusion: waging war off the limits of time

In warfare, time is not mine but ours, with the enemy. This sounds simple, if not obvious. This obviousness is however not necessarily observed in practice, where single-sided temporal analysis and non-dialectical thinking often prevail. Acknowledging the dialectical nature of strategic time is though essential to understand the actual nature of initiative: the coincidence of conditions making exploitation possible, while constraining the adversary to adapt.

In order to create this discrepancy, mastering ones and enemy's sequences is a critical element of the practice of strategy. Mastering should not only be read as a practical challenge, as the endeavor to limit friction in the execution of actions. It must also be understood as an intellectual enterprise, aiming at a better knowledge and understanding of the two sequences at fight. Mastering sequence therefore requires combining the two notions of science and art in strategy.

Time analysis falls under the scientific dimension of strategy, and therefore should not be regarded as more than a simple tool in the hand of the strategist. Indeed, even if conducted with the greatest precision, time analysis cannot perfectly reflect the complexity of strategic interaction. One should therefore resist the temptation of putting war into temporal equations: the aim and capability of time analysis is not more than identifying approximate timeframes of opportunity and initiative. However, by doing so, science of time analysis serves directly the art of grand strategy, by helping conceptualizing where and when to wage war off its conventional limits.

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